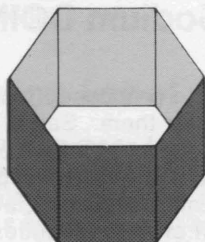


# Texas Agricultural Extension Service



## Dietary Guidelines for Americans Avoid Too Much Sodium

It is important to consider all seven Dietary Guidelines in building a healthful diet:

- Eat a Variety of Foods
- Maintain Desirable Weight
- Avoid Too Much Fat, Saturated Fat and Cholesterol
- Eat Foods with Adequate Starch and Fiber
- Avoid Too Much Sugar
- Avoid Too Much Sodium
- If you Drink Alcoholic Beverages, Do So in Moderation

### Test Your Sodium Knowledge

To see what you already know about sodium and your diet, take this quiz. After you've read this bulletin, try the quiz again to see how much you have learned. (Answers are on page 2).

True False

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Sodium information is provided on nutrition labels of many foods.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. One way to decrease your sodium intake is to use onion and garlic salt instead of table salt.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Many canned and commercially prepared foods have sodium added.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. To reduce sodium, you can use condiments like soy sauce, mustard, salad dressings, pickles, and relishes instead of salt for flavoring foods. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Most foods in the same food group, such as milk and cheese, contain similar amounts of sodium.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Sodium may be added to processed foods as a preservative as well as a flavoring agent.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Salt substitutes are a good idea for everyone trying to reduce sodium intake.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. You can always tell how much sodium a product contains by tasting it.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Preference for the taste of salt is learned, but can be changed with practice.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Many recipes can be prepared with less salt without affecting their acceptability.   |

### Sodium and High Blood Pressure

About one in four Americans has elevated blood pressure. Because it often produces no symptoms, blood pressure should be checked regularly for early diagnosis. High blood pressure increases the risk for heart attack, stroke, and kidney disease.

Risk factors for high blood pressure include a family history of the disease, overweight, and a high sodium intake. Some individuals can eat high-sodium diets without increased blood pressure; others cannot.

Too much sodium in the diet may aggravate high blood pressure once it exists. Thus, limiting dietary sodium is often an important part of treatment, along with exercise, weight reduction (if appropriate), and medication.

We cannot predict who will develop high blood pressure, but we know that many Americans eat much more sodium than they actually need. Therefore, many health professionals believe that reducing sodium is sensible for the population as a whole.

Four out of 10 adults are trying to cut down on salt or sodium. Consider reducing *your* sodium intake.

## Getting the Facts

### What Is Sodium?

Sodium is a mineral that occurs naturally in some foods and is added to many foods and beverages. Most of the sodium in the American diet comes from table salt, which is 40 percent sodium and 60 percent chloride. One teaspoon of salt contains about 2,000 milligrams of sodium.

### Why Is Sodium Important?

Sodium attracts water into the blood vessels and helps maintain normal blood volume and blood pressure. Sodium is also needed for the normal function of nerves and muscles.

### How Much Sodium Do I Need?

Although some sodium is essential to your health, you need very little. The National Research Council of the National Academy of Sciences suggests that a "safe and adequate" range of sodium intake per day is about 1,100 to 3,300 milligrams for adults. This is well below the amount that most American adults consume.

### Where Is Sodium Found in My Diet?

Sodium is in many foods you eat. It may occur naturally in a food or be added during processing, cooking, or at the table. Most sodium added during processing comes from salt, but other ingredients and additives used by manufacturers contain sodium as well. Salt is second only to sugar in amount added by manufacturers to the foods Americans eat.

Foods that provide significant amounts of sodium in the diets of Americans (excluding sodium added during cooking or at the table) include bread and bakery products, cured and processed meats, canned vegetables, and milk products, especially many cheeses. Estimating the actual sodium content of diets is difficult because of the variable amounts of sodium people add to foods during cooking and at the table.

### What's That Sodium DOING There?

Most of the sodium in processed foods is added to preserve and/or flavor them. Salt is the major source of sodium added to these foods. It is added to most canned and some frozen vegetables, smoked and cured meats, pickles, and sauerkraut. Salt is used in most cheeses, sauces, soups, salad dressings, and in many breakfast cereals. Sodium is also found in many other ingredients used in food processing. Examples of sodium-containing ingredients and their uses in foods are:

Baking powder—leavening agent  
Baking soda—leavening agent  
Monosodium glutamate—flavor enhancer  
Sodium benzoate—preservative  
Sodium caseinate—thickener and binder  
Sodium citrate—buffer, used to control acidity in soft drinks and fruit drinks  
Sodium nitrite—curing agent in meat, provides color, prevents botulism (a food poisoning)  
Sodium phosphate—emulsifier, stabilizer, buffer  
Sodium propionate—mold inhibitor  
Sodium saccharin—artificial sweetener

### About Condiments

Watch out for commercially prepared condiments, sauces, and seasonings when preparing and serving foods for you and your family. Many, like those below, are high in sodium.

Onion salt	Soy sauce
Celery salt	Steak sauce
Garlic salt	Barbecue sauce
Seasoned salt	Catsup
Meat tenderizer	Mustard
Bouillon	Worcestershire sauce
Baking powder	Salad dressings
Baking soda	Pickles
Monosodium	Chili sauce
glutamate (msg)	Relish

THE  
**SALT** → **SODIUM**  
CONNECTION

### Salt—Sodium Conversions

1/4 tsp. salt = 500 mg sodium  
1/2 tsp. salt = 1,000 mg sodium  
3/4 tsp. salt = 1,500 mg sodium  
1 tsp. salt = 2,000 mg sodium

### Answers to Quiz:

- |          |          |
|----------|----------|
| 1. True  | 6. True  |
| 2. False | 7. False |
| 3. True  | 8. False |
| 4. False | 9. True  |
| 5. False | 10. True |

The link between salt and sodium may be a little hard to understand at first. If you remember that 1 teaspoon of salt provides 2,000 milligrams of sodium, however, you can estimate the amount of sodium that you add to foods during cooking and preparation, or even at the table.



# Sodium Labeling

Nutrition and ingredient labels on foods can show you the major sources of sodium in your diet and help give you an idea of your sodium intake.

## Using the Nutrition Label

NUTRITION LABELS are on many foods. Placing sodium content on the nutrition label is now optional, unless the product claims to be low or reduced in sodium, or to have less salt or no salt added. However, many manufacturers are providing this information as a service to consumers.

Sodium on nutrition labels is given in milligrams (mg) per serving. The amount includes sodium naturally present in the ingredients as well as sodium added during processing.

Here is part of a nutrition label like those you might see on foods. This label for an oat cereal tells you that this food provides 330 milligrams of sodium in a 1-ounce serving.

### NUTRITION INFORMATION PER SERVING

SERVING SIZE .....	1 oz
SERVINGS PER CONTAINER .....	12
CALORIES .....	110
PROTEIN .....	4 g
CARBOHYDRATE .....	20 g
FAT .....	2 g
SODIUM .....	330 mg
	(1,155 mg per 100 g)

## Using the Ingredient Label

INGREDIENT LABELS are found on nearly all food products. They list the ingredients in the food by weight, from greatest to least. (See the sample below.) Salt is the major—but not the only—source of sodium in food products. Any ingredient that has sodium, salt, or soda as part of its name (monosodium glutamate, baking soda, seasoned salt) contains sodium. Soy sauce and other condiments used as ingredients also contribute sodium.

**INGREDIENTS:** Potatoes, vegetable oil, whey, salt, dried milk solids, sour cream, onion salt, monosodium glutamate, dried parsley, lactic acid, sodium citrate, artificial flavors.

This food contains four different sodium ingredients. Notice that salt is the fourth ingredient in the product by weight. Therefore, this product is probably high in sodium. If there is a nutrition label, check to see if the amount of sodium in a serving is listed. If you want more specific information, write to the manufacturer.

## A Shopping Tip

Many manufacturers are introducing foods with reduced sodium. Examples of types of foods that are now available in low-sodium form or with reduced or no added salt include the following:

- Canned vegetables, vegetable juices, and sauces
- Canned soups
- Dried soup mixes, bouillon
- Condiments
- Snack foods (chips, nuts, pretzels)
- Ready-to-eat cereals
- Bread, bakery products
- Butter, margarine
- Cheeses
- Tuna
- Processed meats

Look for *reduced-sodium* versions of these products where you shop.

## The Fast Food Challenge

Trying to watch your sodium intake while eating at your favorite fast food restaurant can be a real challenge. Fast foods are often high in sodium and it isn't always easy to predict which foods provide the largest amounts. For example, an analysis of one popular fast food meal found that an order of regular (salted) french fries contained *less* sodium than the regular hamburger, or than the milkshake, or than the fruit pie on the menu. There is some good news, however, for fast food lovers who are watching their sodium intake. More and more restaurants are providing nutrition information—including sodium content—for foods on their menus. Ask the manager of your favorite fast food place for any available information.

## A Word to the Wise

How salty a food tastes is not necessarily a good indicator of how much sodium it contains. **TRUST THE LABEL**, instead of your tastebuds.

# Avoiding Too Much Sodium—Some Suggestions

A diet with less sodium does not have to be dull or limited in variety. There are many ways to reduce sodium in your diet without sacrificing flavor or quality. Here are some suggestions to help. Remember that cutting back on sodium begins at the supermarket and continues through food preparation and serving.

## At the Supermarket—

- Be a label reader. Look for information on the sodium content. Learn to recognize all of the sodium-containing ingredients.
- When shopping for lower sodium foods, fresh is usually best. Fresh fruits, vegetables, meats, and unprocessed grains are generally low in sodium. Most "convenience" foods have sodium compounds added, often to help preserve the food.
- Try the low- or reduced-sodium products that are now available. Shop carefully, though. These products can be more expensive. Make sure the reduction in sodium justifies the added cost.

## In the Kitchen—

- Plan meals that contain less sodium. Try new recipes that use less salt and sodium-containing ingredients. Adjust your own recipes by reducing such ingredients a little at a time. Don't be fooled by recipes that have little or no salt but call for soups, bouillon cubes, or condiments that do.
- Experiment with spices and herbs as seasonings. Use spices and herbs instead of salt.
- Cut back on salt used in cooking pasta, rice, noodles, and hot cereals.
- Make your own condiments, dressings, and sauces and keep sodium-containing ingredients at a minimum.

Remember that the foods you prepare can contain less sodium than commercially prepared ones. When you make foods from scratch, you can control how much sodium you add.

## At the Table—

- Taste your food before you salt it. If, after tasting your food, you must salt it, try one shake instead of two.
- Limit the commercial condiments (such as catsup and mustard), dressings, and sauces you add to your food.
- Moderate your selection of high-sodium foods. But be sensible. It's the total amount of sodium in your diet that counts. Eating high-sodium foods occasionally need not be a problem.

## Some Major Points

- Unprocessed grains are naturally low in sodium. Ready-to-eat cereals vary widely in sodium content. Some have no salt added at all. Others are higher in sodium than most breads.
- Fresh, frozen, and canned fruits and fruit juices are low in sodium. Most canned vegetables, vegetable juices, and frozen vegetables with sauce are higher in sodium than fresh or frozen ones cooked without added salt.
- A serving of milk or yogurt is lower in sodium than most natural cheeses, which vary widely in their sodium content. Process cheeses, cheese foods, and cheese spreads contain more sodium than natural cheeses. Cottage cheese falls somewhere between natural and process cheeses.
- Most fresh meats, poultry, and fish are low in sodium. Canned poultry and fish are higher. Most cured and processed meats such as hotdogs, sausage, and luncheon meats are even higher in sodium because sodium is used during processing to preserve them.
- Most "convenience" foods are quite high in sodium. Frozen dinners and combination dishes, canned soups, and dehydrated mixes for soups, sauces, and salad dressings contain a lot of sodium. Condiments such as soy sauce, catsup, mustard, tartar sauce, chili sauce, and pickles and olives are also high in sodium.
- Many low- or reduced-sodium foods are appearing on supermarket shelves as alternatives to those processed with salt and other sodium-containing ingredients. Check the label for the sodium content of these foods.